



IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit  
Examiner

In re Application of:

LLOYD M. SMITH ET AL

Case No. 148-120CIP3

Serial No.: 106,013,232

Filed: 10/7/87

For: AUTOMATED DNA SEQUENCING TECHNIQUE

COMMISSIONER OF PATENTS AND TRADEMARKS  
WASHINGTON, D.C. 20231

SIR:

PETITION AND AMENDMENT UNDER RULE 48

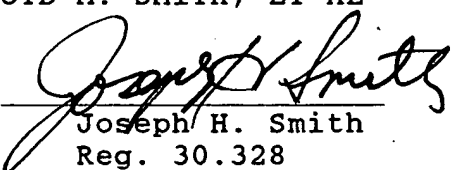
Applicants hereby petition to amend the above-identified patent application to correct the inventorship by adding the name of Charles R. Connell, a U.S. citizen, residing at 167 King St., Redwood City, CA 94062, to the list of inventors.

A verified STATEMENT OF FACTS under Rule 48 that is signed by all of the originally named inventors is attached hereto explaining the circumstances of the error in inventorship. Also included is a new corrected declaration of inventorship signed by all of the inventors including Charles R. Connell, and a letter approving the change of inventorship signed by the originally named assignee, the California Institute of Technology.

Please charge the required fee of \$140.00 and any other fees to deposit acct. 10-1218.

Respectfully submitted  
LLOYD M. SMITH, ET AL

By

  
Joseph H. Smith  
Reg. 30.328

San Jose, CA  
(408) 294-6824



IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of:  
LLOYD M. SMITH ET AL  
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For: AUTOMATED DNA SEQUENCING TECHNIQUE

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WASHINGTON, D.C. 20231

SIR:

Approval by Assignee For Change  
Of Inventorship Under 37 C.F.R. 1.48

The California Institute of Technology, the originally named assignee of the above identified patent application, is fully aware of the request for change of inventorship, and that the corrected inventorship includes Lloyd M. Smith, Leroy E. Hood, Michael W. Hunkapiller, Tim J. Hunkapiller, and Charles R. Connell. The California Institute of Technology approves of this change in inventorship.

Respectfully submitted

  
David W. Morrisroe

Vice President for Business  
and Finance and Treasurer  
California Institute of Technology



IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit 128  
Examiner C. Nucker

In re Application of:  
LLOYD M. SMITH ET AL  
Case No. 148-120CIP3  
Serial No.: 106,013  
Filed: 10/7/87  
For: AUTOMATED DNA SEQUENCING TECHNIQUE

STATEMENT OF FACTS UNDER RULE 48

The above-identified patent application is a continuation-in-part of co-pending Serial No. 689,013, hereinafter CIP-1, and 722,742, hereinafter CIP-2, both of which are now abandoned. CIP-1 is a continuation-in-part of Serial No. 570,973, hereinafter PARENT 1, now abandoned. CIP-1 and CIP-2 were filed originally under great time pressure caused by impending publications which it was felt might jeopardize rights with respect to foreign filing. As a result, extensive discussions regarding inventorship were not performed prior to their filing and it was assumed incorrectly that the inventorship for CIP-1 and CIP-2 were the same as PARENT 1. Both CIP-1 and CIP-2 were joint inventions of personnel who were then employed by one or both of the California Institute of Technology, hereinafter CALTECH, and Applied Biosystems, Inc., hereinafter ABI, and both applications were assigned to CALTECH by the originally named inventors. During the examination of

CIP-2; the Examiner's analysis was reviewed in detail by Dr. Michael Hunkapiller; one of the originally named inventors, who is an employee of ABI. As part of that review, Dr. Hunkapiller happened to collaborate with a colleague at Applied Biosystems, Dr. Charles R. Connell. Dr. Connell, upon reviewing the specification, realized that he too had been involved in the development of significant aspects of the invention described therein, and made that fact known to Dr. Hunkapiller. That was approximately May, 1987. Although it was known previously that Dr. Connell had been involved in the commercial implementation of the invention, the full extent of his involvement in the early development of the invention was not fully appreciated until the Office Action caused a more critical review. Upon reviewing evidence of Dr. Connell's collaboration, it was apparent that Dr. Connell was a co-inventor, at which time Dr. Hunkapiller contacted Applied Biosystems' patent attorney, Mr. Joseph H. Smith, to review the situation. Mr. Smith agreed that the evidence indicated that Dr. Connell was a co-inventor. Hence, Mr. Smith contacted CALTECH's patent attorney, Mr. Edward Ansell, on or about May 29, 1987, and described the situation. Several discussions were held regarding the inventorship situation. However, a number of individuals were difficult to reach due to the summer break in the academic schedule and due to vacation schedules. Nevertheless, to avoid any

implication of fraud on the Patent Office, CALTECH, as part of its response to the outstanding Office Action for CIP-2, informed the Patent Office of this third party claim by ABI on September 14, 1987. Further discussions ensued between CALTECH and ABI, and on October 7, 1987, the above-identified patent application was filed as a continuation-in-part of the parent cases CIP-1 AND CIP-2, with the Patent Office being informed at that time of the third party claim regarding inventorship by ABI. During the following months, CALTECH and ABI further reviewed the inventorship situation and resolved those issues. Following that resolution, CALTECH and ABI have been involved in negotiating a suitable licensing and marketing arrangement between themselves with regard to the technology. Those negotiations have now been completed, and a more complete claim structure for the instant case is near completion.

It is clear that the error in inventorship was inadvertent and occurred due to the time constraints in filing the above-described applications. Absolutely no deceptive intent was involved, and we support the addition of Charles R. Connell as a joint inventor on this application.

DECLARATION:

As an originally named inventor, I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that

these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of 1st Inventor Lloyd M. Smith  
Inventor's signature [Signature] Date 9/18/88  
Residence 1115 Amherst Drive, Madison, WI 53705  
Citizenship United States of America  
Post Office Address SAME

Full Name of 2nd Inventor Leroy E. Hood  
Inventor's signature [Signature] Date 9/14/88  
Residence 1453 E. California, Pasadena, 91009  
Citizenship United States of America  
Post Office Address SAME

Full Name of 3rd Inventor Michael W. Hunkapiller  
Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence 1333 Pebble Drive, San Carlos, CA 94070  
Citizenship United States of America  
Post Office Address SAME

Full Name of 4th Inventor Tim J. Hunkapiller  
Inventor's signature [Signature] Date 9/14/88  
Residence 294 South Wilson #5, Pasadena, CA 91106  
Citizenship SAME  
Post Office Address \_\_\_\_\_



IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit 128  
Examiner C. Nucker

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Full Name of 1st Inventor Lloyd M. Smith  
Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence \_\_\_\_\_  
Citizenship United States of America  
Post Office Address \_\_\_\_\_

Full Name of 2nd Inventor Leroy E. Hood  
Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence 1453 E. California, Pasadena, 91009  
Citizenship United States of America  
Post Office Address SAME

Full Name of 3rd Inventor Michael W. Hunkapiller  
Inventor's signature Michael W. Hunkapiller Date 8/27/1988  
Residence 1333 Pebble Drive, San Carlos, CA 94070  
Citizenship United States of America  
Post Office Address SAME

Full Name of 4th Inventor Tim J. Hunkapiller  
Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence 294 South Wilson #5, Pasadena, CA 91106  
Citizenship SAME  
Post Office Address \_\_\_\_\_

DECLARATION AND POWER OF ATTORNEY  
FOR PATENT APPLICATION

ATTORNEY'S DOCKET NO.

148-120CIP3

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

AUTOMATED DNA SEQUENCING TECHNIQUE

the specification of which (check one) ☐ is attached hereto.

☒ was filed on October 7, 1987

Application Serial No. 106,232

and was amended on \_\_\_\_\_  
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority Claimed

(Number) \_\_\_\_\_ (Country) \_\_\_\_\_

(Day/Month/Year filed) \_\_\_\_\_

☐  
Yes

☐  
No

(Number) \_\_\_\_\_ (Country) \_\_\_\_\_

(Day/Month/Year Filed) \_\_\_\_\_

☐  
Yes

☐  
No

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.) \_\_\_\_\_

(Filing Date) \_\_\_\_\_

(Status) (patented, pending, abandoned) \_\_\_\_\_

(Application Serial No.) \_\_\_\_\_

(Filing Date) \_\_\_\_\_

(Status) (patented, pending, abandoned) \_\_\_\_\_

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number)

Joseph E. Mueth, Reg. No. 20,532

Joseph H. Smith, Reg. No. 30,328

SEND CORRESPONDENCE TO:

Joseph E. Mueth  
700 S. Flower Street #2200  
Los Angeles, CA 90017

DIRECT TELEPHONE CALLS TO:  
(name and telephone number)

Joseph E. Mueth  
(213) 688-7507

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Lloyd M. Smith  
Inventor's signature \_\_\_\_\_ Dated: \_\_\_\_\_  
Residence \_\_\_\_\_ Citizenship U.S.A.  
Post Office Address \_\_\_\_\_

Full name of 2nd joint inventor, if any Leroy E. Hood  
2nd Inventor's signature \_\_\_\_\_ Dated: \_\_\_\_\_  
Residence 1453 E. California, Pasadena, CA 91009 Citizenship U.S.A.  
Post Office Address SAME

Full name of 3rd joint inventor, if any Michael W. Hunkapiller  
3rd Inventor's signature Michael W. Hunkapiller Dated: 8/27/1988  
Residence 1333 Pebble Drive, San Carlos, CA 94070 Citizenship U.S.A.  
Post Office Address SAME

Full name of 4th joint inventor, if any Tim J. Hunkapiller  
4th Inventor's signature \_\_\_\_\_ Dated: \_\_\_\_\_  
Residence 294 South Wilson #5, Pasadena, CA 91106 Citizenship U.S.A.  
Post Office Address SAME

Full name of 5th joint inventor, if any Charles R. Connell  
5th Inventor's signature Charles R. Connell Dated: \_\_\_\_\_  
Residence 167 King Street, Redwood City, CA 94062 Citizenship U.S.A.  
Post Office Address SAME